

REMARKS

By this amendment, Claims 1-4, 7, 9-11 have been amended, Claims 16-26 have been added, and Claims 12-15 have been cancelled. Amendment to the claims is made without acquiescence to the position of the Examiner or prejudice to pursue the claims as previously presented in a continuation application. Hence, Claims 1-11 and 16-26 are pending in the application.

SUMMARY OF THE REJECTIONS

Claims 1-8, 11, and 14-15 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,999,947 issued to Zollinger et al. ("*Zollinger*"). Claims 9-10 have been rejected under 35 U.S.C. § 103(a) over Zollinger in view of U.S. Patent No. 6,016,497 issued to Suver ("*Suver*").

The rejections are respectfully traversed.

THE PENDING CLAIMS ARE PATENTABLE OVER THE CITED ART

Even if each of the cited references were to be properly combined, each of the pending claims recites at least one element that is not disclosed, taught, or suggested by the cited art, either individually or in combination. Each of the independent claims will be discussed separately below.

Claim 1

Claim 1 recites the features of:

A method of propagating changes to a table, comprising the steps of:
maintaining a first copy of the table at a first site;
maintaining a second copy of the table at a second site;
transmitting change data that identifies changes made to the first copy of the table
from the first site to the second site; and
updating the second copy of the table at the second site based on the change data
to create an updated second copy of the table,
**wherein the first copy of the table and the updated second copy of the table
have at least one non-overlapping relational database column both
before and after the step of updating** (emphasis added).

At least the above-bolded element of Claim 1 is not disclosed, taught, or suggested by *Zollinger*.

Claim 1 recites an approach for propagating changes to a table. According to the approach of Claim 1, a first copy of a table is maintained at a first site, and a second copy of the table is maintained at a second site. Change data that identifies changes made to the first copy of the table is transmitted from the first site to the second site. The second copy of the table, at the second site, is updated based on the change data to create an updated second copy of the table. The first copy of the table and the updated second copy of the table have at least one non-overlapping relational database column both before and after the step of updating the second copy of the table.

In sharp contrast, the approach of *Zollinger* is directed towards an approach for synchronizing a client copy of a database with changes made to a server copy of the database. Each client copy of a database table and update created by the server has a sequential version number associated therewith. The server will compare the version number of a client copy of a database table with the most recent version number of the table on the server to determine which updates need to be applied in order to make the client copy current with the copy on the server. (Abstract). When the client copy of the database is "current with" the server copy of the database, the client copy of the database is the same as the server copy of the database. In other words, the database schema used by the client is the same as the database schema used by the server.

There are several fundamental differences between the approach of Claim 1 and that of *Zollinger*. For example, the motivation of *Zollinger* is to make a client copy of a database schema current with a server copy of the database schema. On the other hand, in the approach of Claim 1, the first copy of the table and the updated second copy of the table have at least one non-overlapping relational database column both before and after the step of updating.

As a result of the fundamental differences between the approach of Claim 1 and *Zollinger*, one or more features of Claim 1 are not disclosed, taught, or suggested by *Zollinger*. For example, *Zollinger* does not disclose, teach, or suggest the feature of "wherein the first copy of the table and the updated second copy of the table have at least one non-overlapping relational database column both before and after the step of updating." Instead, *Zollinger* teaches an approach for making a client copy of the database synchronized with a server copy of the database. For example, *Zollinger* teaches:

It is an object of the present invention to quickly deliver database changes made to an original database table on a server to a requesting client so that the client may apply the differences to make the client copy of the database table current. (Col. 17, lines 61-67).

The server synchronizer component 46 is responsible for sending the initial database copy to one or more clients and updating or synchronizing the client's copy of the database table whenever a client connects to the server and requests such update or synchronization. (Col. 22, lines 24-28).

The server synchronizer component 46 will communicate with the series of updates 38 as represented by arrow 52 in order to use those updates in synchronizing the client copy of the database table located on a respective client system with the original database found on the server (Col. 22, lines 49-54).

In *Zollinger*, after the client copy of the database table is synchronized with the server copy of the database, the client copy of the database has the same schema as the server copy of the database. As a result, *Zollinger* cannot possibly disclose, teach, or suggest the feature of “wherein the first copy of the table and the updated second copy of the table have at least one non-overlapping relational database column both before and after the step of updating.” Instead, in *Zollinger*, after a sync operation, the client copy of a database table has exactly the same columns as the server copy of the same database table.

Consequently, it is respectfully submitted that at least one element of Claim 1 is not disclosed, taught, or suggested by *Zollinger*. As a result, Claim 1 is patentable over the cited art and is in condition for allowance.

Claim 11

Claim 11 recites the features of:

A method of propagating changes to a data container, comprising the steps of:
maintaining a first copy of the data container at a first site;
maintaining a second copy of the data container at a second site;
transmitting change data that identifies changes made to the first copy of the data container from the first site to the second site; and
updating the second copy of the data container at the second site based on the change data to create an updated second copy of the table;
wherein the first copy of the data container and the updated second copy of the data container have at least one non-overlapping data field both before and after the step of updating (emphasis added).

At least the above-bolded element of Claim 11 is not disclosed, taught, or suggested by *Zollinger*.

As explained above, in *Zollinger*, after the client copy of the database table is synchronized with the server copy of the database, the client copy of the database has the same schema as the server copy of the database. As a result, *Zollinger* cannot possibly disclose, teach, or suggest the performance of any action analogous to “wherein the first copy of the data container and the updated second copy of the data container have at least one non-overlapping data field both before and after the step of updating.” Instead, in *Zollinger*, the client copy of a database table has exactly the same columns as the server copy of the same database table.

Consequently, it is respectfully submitted that at least one element of Claim 11 is not disclosed, taught, or suggested by *Zollinger*. As a result, Claim 11 is patentable over the cited art and is in condition for allowance.

Claim 9

Claim 9 recites the features of:

- A method of modifying a table to drop a first column and add a second column, said table being replicated at a plurality of sites, comprising the steps of:
- (a) associating a first flavor with a first site, said first flavor describing the table as having both the first column and the second column;
 - (b) after associating the first flavor with the first site, adding the second column to a first copy of the table at the first site, so that the first copy of the table contains both the first column and the second column;
 - (c) associating a second flavor with the second site, said second flavor describing the table as having the second column but not the first column;
 - (d) after associating the second flavor with the second site, dropping the first column and adding the second column to a second copy of the table at the second site;
 - (e) after dropping the column and adding the second column to the second copy of the table at the second site, associating the second flavor with the first site and dropping the first column from the first copy of the table at the first site; and
 - (f) **maintaining replication activities while performing steps (a), (b), (c), (d), and (e) such that records stored in the first copy of the table at said first site are replicated from said first site to said second site while said first copy of the table and said second copy of the table maintain a different set of columns for the table (emphasis added).**

At least the above-bolded element of Claim 9 is not disclosed, taught, or suggested by *Zollinger* or *Suver*, either individually or in combination.

As explained above, in *Zollinger*, after the client copy of the database table is synchronized with the server copy of the database, the client copy of the database has the same schema as the server copy of the database. Consequently, *Zollinger* cannot possibly disclose, teach, or suggest the feature of “maintaining replication activities while performing steps (a), (b), (c), (d), and (e) such that records stored in the first copy of the table at said first site are replicated from said first site to said second site while said first copy of the table and said second copy of the table maintain a different set of columns for the table.” In sharp contrast, *Zollinger* does not teach an approach for replicating data from a first copy of a table to a second copy of the table while the first copy of the table and the second copy of the table maintain a different set of columns for the table. As a result, this element cannot be disclosed, taught, or suggested by *Zollinger*. Similarly, *Suver* does not discuss or suggest anything remotely analogous to this element, so even if *Zollinger* were to be properly combined with *Suver*, the resulting combination would fail to disclose, teach, or suggest this element.

Consequently, it is respectfully submitted that at least one element of Claim 9 is not disclosed, taught, or suggested by either *Zollinger* or *Suver*, either individually or in combination. As a result, Claim 9 is patentable over the cited art and is in condition for allowance.

Claims 2-8, 10, 16-26

Claims 16, 24, and 26 are each independent computer readable mediums claims that feature limitations similar to those discussed above with reference to Claims 1, 9, and 11 respectively. Consequently, for at least the reasons given above with respect to Claims 1, 9, and 11, it is respectfully submitted that Claims 16, 24, and 26 are each patentable over the cited art and are in condition for allowance.

Claims 2-8, 10, 17-23, and 25 are dependent claims, each of which depends (directly or indirectly) on one of the claims discussed above. Each of Claims 2-8, 10, 17-23, and 25 is therefore allowable for the reasons given above for the claim on which it depends. In addition, each of Claims 2-8, 10, 17-23, and 25 introduces one or more additional limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those limitations is not included at this time, although the Applicants reserve the right to further point out the differences between the cited art and the novel features recited in the dependent claims.

CONCLUSION

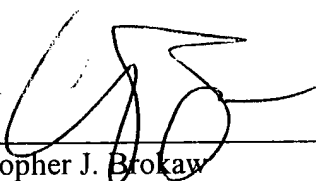
For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 16.136 is hereby made. Please charge any fee shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP



Christopher J. Brokaw
Reg. No. 45,620

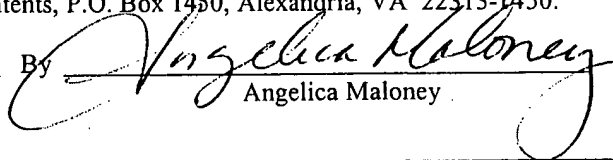
2055 Gateway Place Suite 500
San Jose, California 95110-1089
(408) 414-1080, ext. 225
Date: **September 26, 2005**
Facsimile: (408) 414-1076

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: **Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

On September 26, 2005

By



Angelica Maloney